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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/089,978	06/14/2002	Lutz Axel May	6770-8	4103

4897 7590 07/11/2003

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EXAMINER
JENKINS, JERMAINE L

ART UNIT	PAPER NUMBER
2855	

DATE MAILED: 07/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/089,978	MAY, LUTZ AXEL	
	Examiner	Art Unit	
	Jermaine Jenkins	2855	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5-7 and 9-13* is/are rejected.

7)☒ Claim(s) *4 and 8* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. Acknowledgement of the preliminary amendment is made on 6/30/03.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-3, 5-7, 10 & 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garshelis (5,351,555) in view of Hoffman et al (EPO 0434089A1)

In regards to claims 1 & 5-7, Garshelis teaches a non-contact method for measuring torque comprising a transducer (4) attached to the rotating shaft (8) with a magnetic field sensor (6) (Column 4, lines 57-61). The magnetic field sensor (6) senses the polarized magnetization of the application of torsional stress to the transducer (4) while providing a signal output relative to the increase or decrease of the applied torque (Column 5, lines 33-56). The magnetic field sensor (6) also provides an electrical signal outputs directly proportional to the flux (Column 9, lines 44-50). However, Garshelis does not teach the means for generating a compensating flux to counteract the longitudinal flux at the transducer region.

Hoffman et al teaches the use of generating a magnetic signal, such as flux, field, etc., from output (12) of the regulator that drives a current through a compensation winding (14) to generate an opposite compensating field (Column 6, lines 39-58). Therefore it would have been

obvious to one of ordinary skill in the art at the time the invention was made to provide a compensating circuit as taught by Hoffman et al in the system of Garshelis for the sole purpose of reducing harmonic content.

With respect to claims 2, 10, Hoffman et al teaches the means for generating the compensating flux comprises at least one current-carrying coil (14) about the shaft to be magnetically coupled (Column 6, lines 53-58)

With respect to claims 3, 11 Hoffman et al teaches the means of having poles, e.g. yokes, (46) spaced along the shaft and at least one current-carrying coil (14) (Column 9, lines 12-27).

3. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Garshelis (5,351,555) in view of Charles et al (GB 968503).

In regards to claim 12, Garshelis teaches the measurement of torque comprising a transducer (4) attached to the rotating shaft (8) with a magnetic field sensor (6) (Column 4, lines 57-61). The magnetic field sensor (6) senses the polarized magnetization of the application of torsional stress to the transducer (4) while providing a signal output relative to the increase or decrease of the applied torque (Column 5, lines 33-56). The magnetic field sensor (6) also provides an electrical signal outputs directly proportional to the flux (Column 9, lines 44-50). However, Garshelis does not teach an erase head, a write head and a pair of read heads for cleaning a zone of the shaft as it rotates and responds to the magnetic track.

Charles et al teaches the use of sensitive heads (15, 15) comprising a combined electromagnetic magnetizing and erasing head and being in the form of a single coil unit having a pair of terminals (Column 5, lines 17-24). Therefore it would have been obvious to one of

ordinary skill in the art at the time the invention was made to provide an erasing head as taught by Charles et al in the system of Garshelis for the purpose of erasing or cleaning any information within a torsion system.

4. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Garshelis (5,351,555) in view of Charles et al (GB 968503) as applied to claim 12 above, and further in view of Yamada et al (4,647,854).

In regards to claim 13, Garshelis and Charles et al teach the claimed invention except for the energizing with an AC signal at a selected frequency. Yamada et al teaches an oscillator (13) that generates an AC signal at a predetermined frequency to a terminal of amplifier (14) (Column 5, lines 46-50). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to generate a signal to any electronic device as taught by Yamada et al in the apparatus of Garshelis and Charles et al for the purpose of measuring the level of any parameter with greater accuracy.

Allowable Subject Matter

5. Claims 4 and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jermaine Jenkins whose telephone number is 703-305-3839. The examiner can normally be reached on Monday-Friday 8am-430pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on 703-305-4816. The fax phone numbers for the organization where this application or proceeding is assigned are 703-306-7382 for regular communications and 703-305-3839 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-3431.

Jerrmaine Jenkins
A.U. 2855
JJ
July 2, 2003

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